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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,587	10/09/2001	Kelan C. Silvester	INTL-0678-US (P12996)	7106

7590 11/10/2003

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EXAMINER

SOBUTKA, PHILIP

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

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4

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Commissioner for Patents

Office Action Summary

Application No.

09/974,587

Applicant(s)

SILVESTER, KELAN C.

Examiner

Philip J. Sobutka

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,5 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilhousen (US 5,559,865)

Consider claim 1. Gilhousen teaches providing cellular repeaters in a plurality of vehicles (Gilhousen see especially col 1, lines 28-60, note that Gilhousen's system would be deployed on a plurality of aircraft); and enabling the repeaters to receive and forward transmissions between mobile users and cellular towers (Gilhousen see especially col 2, lines 20-60). Note that the system of Gilhousen would perform the claimed steps.

As to claim 2, note that Gilhousen's cellular repeater is a vehicle radio.

As to claim 5, note that Gilhousen bi-directionally transmits with cell towers (Gilhousen see especially fig 1, col 2, lines 20-24).

3. Claims 1,2,4,5,7,12,13,15,16, are rejected under 35 U.S.C. 102(b) as being anticipated by Khamis et al (US 5,930,729)

Consider claim 1. Khamis teaches providing cellular repeaters in a plurality of vehicles (Khamis see especially figure 2, col 3, line 35 – col 4, line 18, note that Khamis' system would be deployed on a plurality of automobiles); and enabling the repeaters to

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receive and forward transmissions between mobile users and cellular towers (Khamis see especially see especially col 3, line 35 – col 4, line 18). Note that the system of Khamis would perform the claimed steps.

As to claims 2,13, note that Khamis cellular repeater is a vehicle radio.

As to claims 5,16, note that Khamis bi-directionally transmits with cell towers (Khamis see especially col 3, line 35 – col 4, line 18).

As to claims 4,12,15, note that Khamis uses vehicle power for the repeater (Khamis col 10, lines 57-60).

As to claim 7, note that that Khamis teaches an antenna (Khamis see especially fig 3, item 24), an amplifier (Khamis see especially fig 4B, items 148,158,179,182), and a connection to vehicle power supply (Khamis col 10, lines 57-60).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3,6,14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Khamis in view of Hayashi (US 5,907,540).

Consider claim 6. Khamis teaches everything claimed as shown above except for transmitting to and from other mobile repeaters. Hayashi teaches a network of repeater units which bi directionally transmit to and from other repeaters (Hayashi see especially fig 1, col 2, lines 8-52). Hayashi teaches that this extends the range of the

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system (Hayashi col 2. lines 23-25). It would have been obvious to one of ordinary skill in the art to modify the mobile repeaters of Khamis to exchange signals with other mobile repeaters in order to extend the range of the system as taught by Hayashi.

As to claims 3,14, note that Hayashi teaches the data only being read out by the destination, not any of the intermediate repeaters (Hayashi see especially col 7, line 30 – col 8, line 45).

6. Claims 8-11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Khamis in view of Noguchi et al (US 4,764,979).

Consider claims 8,11. Khamis teaches everything claimed as shown above except for the structure of the repeater. Noguchi teaches a repeater with a pair of antennas (Noguchi fig 2, items 11,12), circulators (Noguchi fig 2, items 13,14) amplifiers (Noguchi fig 2, items 17,27) and isolators (Noguchi figs 3A-C, items 41,42,44). It would have been obvious to one of ordinary skill in the art to modify Khamis to use the circuit arrangement as taught by Noguchi in order to utilize an arrangement that effectively separated the repeated signals.

As to claim 9, Khamis in view of Noguchi teach everything claimed including circulators to separate the transmit and receive signals. Noguchi lacks a teaching of using Duplexers to separate the signals. Official Notice is taken that it is notoriously well known in the art to use duplexers to separate transmit and receive signals. It would have been obvious to one of ordinary skill in the art to replace the circulators with duplexers in order to use an effective filter arrangement for separating the signals.

Drawings

7. The drawings are objected to because each box in figure 2 should be labeled with a simple English language description to permit an easy analysis of the figure. Correction is required.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Sobutka whose telephone number is 703-305-4825. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Philip Sobutka

Pjs
October 13, 2003

A handwritten signature in black ink, appearing to read "Mark Conser". The signature is fluid and cursive, with a long horizontal stroke extending to the right.